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**Title: Healthcare professionals' views of group structured education for people with newly diagnosed Type 2 diabetes.**

**Running head: Healthcare professionals' views of Type 2 diabetes education**

**K. Winkley<sup>1\*</sup>, R. Upsher<sup>1</sup>, S. M. Keij<sup>1</sup>, M. Chamley<sup>2</sup>, K. Ismail<sup>1</sup>, and A. Forbes<sup>3</sup>**

## **Affiliation**

<sup>1</sup>Diabetes, Psychiatry, & Psychology, Department of Psychological Medicine, King's College London & Institute of Psychiatry, Psychology & Neuroscience, UK.

<sup>2</sup>Lambeth Clinical Commissioning Group Diabetes Intermediate Care Team, south London, UK

<sup>3</sup>Florence Nightingale Faculty of Nursing & Midwifery, King's College London, UK

Corresponding author:

Kirsty Winkley, [kirsty.winkley@nhs.net](mailto:kirsty.winkley@nhs.net)

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## **Conflicts of Interest**

None

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Current address is:

\*Florence Nightingale Faculty of Nursing & Midwifery, King's College London, UK

Novelty statement:

- This qualitative study of healthcare professionals' views of the **D**iabetes **E**ducation and **S**elf-**M**anagement for **O**ngoing and **N**ewly-**D**iagnosed (DESMOND) programme:
  - Identified the benefits as peer learning, saving healthcare professional consultation time, and improved patient outcomes.
  - Identified as limitations to uptake of DESMOND, the appropriateness for people with different levels of health literacy and issues communicating the benefits of DESMOND to patients.
  - Suggestions for improvement included making strategies to improve uptake of DESMOND such as making it more local, incentives and improved marketing, and strategies to improve the content of DESMOND such as follow-up sessions and additional psychological support.

Current address is:

\*Florence Nightingale Faculty of Nursing & Midwifery, King's College London, UK

## **Abstract**

### **Aim**

To determine healthcare professionals' (HCP) views of group structured education for people with newly diagnosed Type 2 diabetes (T2DM).

### **Methods**

This was a qualitative study using semi-structured interviews to ascertain primary care HCPs' views and experiences of education for people with newly diagnosed T2DM. A thematic framework method was applied to analyse the data. Participants were HCPs' (N=22) from 15 general practices in 3 south London boroughs, UK.

### **Results**

All but one HCP viewed diabetes education favourably and all identified that low attendance was a problem. Three key themes emerged from the qualitative data: 1. benefits of diabetes education, including the group mode of delivery, improved patient interactions, saving HCPs' time and improved patient outcomes; 2. factors limiting uptake of education, included patient level problems such as access and appropriateness of the programme for certain groups, and difficulties communicating the benefits to patients and integration of education management plans into ongoing diabetes care; and 3. suggestions for improvement, included strategies to improve attendance at education with more localised and targeted marketing and enhanced programme content including follow-up sessions and support for people with pre-existing psychological issues.

### **Conclusions**

Most HCPs valued diabetes education and all highlighted the lack of provision for people with different levels of health literacy. As there was wide variation in terms of the level of knowledge regarding the education on offer future studies may want to focus on how to help HCPs encourage their patients to attend.

### **Keywords:**

Diabetes Self-Management Education (DSME), structured education, group education, qualitative, health professionals, Type 2 diabetes, primary care

## Introduction

Diabetes self-management education (DSME) is associated with improved diabetes knowledge, self-management [1, 2], glycaemic control [3-5], psychological status and cardiovascular risk [4-6]. DSME is recommended for people with Type 2 diabetes (T2DM) to improve outcomes [7-9]. Data from the UK's national diabetes audit 2014-15 suggests that only 5.3% attend a DSME programme and attendance rates vary by region [10], despite wide programme availability and incentives for general practices to refer to DSME to encourage participation. In a prospective cohort of ~1800 people with newly diagnosed T2DM in south London, UK, only 22% attended the local **D**iabetes **E**ducation and **S**elf-**M**anagement for **O**ngoing and **N**ewly-**D**iagnosed (DESMOND) programme within 2 years of diagnosis [11]. Attendees tended to be female, non-smokers, with better glycaemic control at ~6 months from diagnosis and attending General Practices with relatively better performance in relation to the UK diabetes quality outcomes framework (QOF) metrics for primary care [11]. Qualitative interviews undertaken as part of the cohort study with people who did not attend DESMOND identified a number of reasons for not attending. These included a lack of information from healthcare professionals (HCP) on the potential benefits of attending DESMOND and logistical difficulties in attending the course (e.g. timing of the course, no parking facilities). In addition, there were those who were reluctant to attend a group education programme as they felt their condition stigmatized them with its associations to overeating and obesity; or in some communities through negative cultural beliefs about the disease [12]. Similar findings were reported in a recent systematic review on non-attendance at DSME that identified two broad categories of non-attender. There were people who could not attend for logistical, financial or medical reasons (e.g. timing of course, costs associated with attending and existing co-morbidities) and those who would not attend because they perceived no benefit from doing so or for emotional and cultural reasons (e.g. denial or negative feelings towards education, literacy and language issues) [13].

From these studies it would seem there are a number of potentially modifiable areas to improve the uptake of DSME, including: enhanced pre-programme information; and the need to individualise the benefits to the people with diabetes. A pivotal factor in promoting these programmes for people with T2DM are HCPs in primary care, usually but not restricted to primary care nurses and physicians, as they are often the primary point of access to the local DSME provision [14, 15]. However, despite the importance of the role these HCPs play in supporting DSME uptake, little research has been undertaken to consider their views and experiences as previous research has focused on HCPs who deliver DSME [16]. It is important, therefore, to gain a deeper understanding of how primary care based HCPs perceive DSME to help identify factors that may govern the way they introduce DSME to patients and elicit their

ideas for improving programme uptake. The aim of this study was to determine their view of the DSME on offer for people with T2DM in south London, UK.

## **Participants and Methods**

This was a qualitative study using group or one-to-one semi-structured interviews with HCPs from 3 south London boroughs. Ethical approval was gained from King's College London (ref: PNM/11/12-137). General Practices were purposively sampled according to borough and list size, small  $\leq 5,999$  patients, medium 6,000-9,999 patients, or large  $\geq 10,000$  patients. Following this HCPs most involved in referring or informing people with T2DM regarding DSME for, were invited for interview. The DESMOND programme was the DSME course offered within the sampling frame, see box 1 [17]. A total of 28 HCPs were recruited and consented for interview to provide a good breadth of HCP experiences and perspectives in order to enable good thematic extrapolation and for data saturation to occur.

Semi-structured interviews were used to explore HCPs views of DSME for people with newly diagnosed T2DM, considering their: knowledge and experience of DESMOND; awareness of and explanations for low attendance; experience of the referral process; and recommendations for enhancing programme uptake. The interview topic guide was developed with reference to previous studies identifying reasons for non-attendance at DSME. The interview schedule was piloted with a focus group of 8 people from 1 general practice. The interviewees consisted of GPs, practice nurses and administrators (practice manager, IT manager and senior receptionist). It was a large group to determine which people within the practice were most likely to be involved in informing and referring patients to DESMOND. It transpired that there were 2 HCPs who were the diabetes specialists (1 GP and 1 nurse) who saw most of the diabetes patients and would refer to DESMOND. Following this interview only HCPs involved in referring to DESMOND were invited for interview. As no major issues were raised and no major changes made to the topic guide pilot data from the diabetes specialists ( $n=2$ ) were included in the main study, therefore the final sample included was  $N=22$ . There were 2 versions of the topic guide, a longer version for one-to-one interviews and a simplified version for all interviews with more than one person. The main difference between the two topic guides was a specific focus on eliciting examples of the topics under investigation in the group version (see Appendix 1).

One researcher conducted the interviews (KW) which were audio-recorded and transcribed verbatim. The data were entered and managed in a qualitative computer software programme, Nvivo 10. A thematic framework was applied to analyse the data [18]. This method involved five stages: 1. familiarization with transcript data; 2. identification of an initial thematic framework which was conducted independently by two researchers (RJ and SK) for 5 interviews following which the frameworks were refined and integrated by consensus; 3. indexing and application of the framework to the dataset; 4. charting of data within the matrix, counting keywords [19] and inclusion of deviant accounts; and 5. mapping and interpretation.

## **Results**

Twenty four General Practices, including the pilot GP practice, were contacted and HCPs from 15 (63%) agreed to participate. We recruited at least 1 GP practice per borough from those with a small list size,  $\leq 5,999$ , 4 were recruited from borough 1, 5 from borough 2, and 6 from borough 3, please see Table 1 for more detail. Of the remaining 9 contacted, 2 expressed interest but no suitable date was found, 1 declined and 6 did not respond. Non-participating practices showed no discernible distinctions with the participating practices in terms of list size. Recruitment of participants discontinued when no new themes emerged, 22 people were interviewed. The mean age of the sample was 52.1 years (SD 7.8), the majority were female (89%) practice nurses (n=21) of white ethnicity (86%), see table 2. One GP and 2 nurses were diabetes commissioners. With the exception of the pilot interview, the remaining interviews were conducted either one-to-one (n=9), or dyad (n=3) or triad (n=1). Interviews lasted for a mean (SD) of 29.1 (6.4) min, resulting in 436 min of data.

### **Overall perceptions of DESMOND**

HCPs from 14 out of the 15 general practices viewed DESMOND in a positive light, that it was necessary for people to attend to aid their diabetes self-management. There was 1 practice where the interviewee was less favourable. She felt that her diabetes patients were excluded from DESMOND because of language barriers and had received feedback from a patient who had not been impressed by the way it was delivered. All HCPs identified that low attendance was a problem.

### **HCPs familiarity with DESMOND**

Three HCPs were either currently (n=2) or previously (n=1) DESMOND educators. A further 16 had attended a DESMOND taster session delivered by a dietician and one HCP had attended a university diabetes course where DESMOND was discussed. Therefore, 19 out of 22, were aware of the programme's main aims and that DESMOND is patient-centred, "*it is tailored to the patient*" (Practice 8, practice nurse b). The HCP who had been negative about the DESMOND programme had not had a taster session but was willing to attend.

Our analytical framework of primary care HCPs views of the DESMOND programme comprised 3 key themes and are presented in the following categories: 1. Benefits of the DESMOND programme; 2. Factors limiting attendance at the DESMOND programme; and 3. Suggestions for improvement. Within each key theme there were sub-themes.

#### **1. Benefits of the DESMOND programme**

This theme expresses the HCPs views in relation to how the programme benefited people with diabetes and their own clinical practice.

##### *1.a Programme delivery and content*

HCPs saw benefits in the mode of delivery particularly the group interactions and exposure to other people with diabetes of which around a quarter of HCPs viewed as a benefit (n=5).

*"They're learning from each other ...just being in groups is good."*

(Practice 8, practice nurse a)

*"[They] get to meet other diabetics who are going through the same kind of thing... [they] relate to them about you know, how your diabetes is."*

(Practice 15, practice nurse a)

HCPs also identified that DESMOND was generally delivered in venues that were perceived to facilitate easy access for people to attend (n=2). Around a quarter (n=5) remarked on the value placed on the dietetic support provided *"they [people with diabetes] come back and say I understand more about carbs"* (Practice 5, practice nurse).

The benefits of DESMOND programme delivery were not limited to patients, with HCPs (n=4) recognising that the additional time offered through programme participation enabled patients to consider their diabetes self-management and knowledge gaps thereby reducing the time demands on themselves.

*"I get thirty minutes for my diabetic appointments.... the amount of information I can give them... is limited."*

(Practice 6, practice nurse)

*"...if you have a patient that doesn't go then you know that you have got to give more information about diet, more information about complications, keeping themselves well etc."*

(Practice 15, practice nurse a)

One of the practice nurses who had been a DESMOND educator spoke about how DESMOND's underlying adult learning theory supports people to connect information they learn about T2DM.

*"...the bit that was most beneficial I found... was light bulb moments when you tried to link the complications with the disease progression because they saw complications as very separate and couldn't, "What does my poor eyesight got to do with my diabetes?""*

(Practice 5, practice nurse)

### *1.b Patient outcomes*

The majority of HCPs (n=20) received good feedback from people who had attended. However, half of the HCPs (n=11) reported examples of how DESMOND appeared to help people with



their knowledge of diabetes, “light-bulb moments”, improved self-efficacy and day to day dietary and self-management of their diabetes.

*“I think they just feel more informed, and more confident when, [they do] simple things like going shopping.”*

(Practice 8, practice nurse b)

*“I think I’ve seen initially definitely with newly diagnosed it does initially improve the outcomes, whether that carries on long-term I’m unsure.”*

(Practice 4, practice nurse b)

## **2. Factors that limit attendance at the DESMOND programme**

All of the HCPs interviewed recognised that attendance was an issue, although the scale of the problem within each borough was not directly specified. Within one of the boroughs all people newly diagnosed with T2DM were referred regardless of their suitability, whereas in the other 2 boroughs it was the practice nurse or GP who would make the decision to refer. Therefore, in these contexts programme uptake requires that both HCP and patient behaviour are in union as non-attendance could be ascribed in 3 ways: HCP fails to refer; informed patients do not book in; or booked in patients do not attend.

### *2.a Logistical and procedural problems affecting access to the programme*

All HCPs (n=22) commented on people having difficulty with accessing the programme and declining the referral to DESMOND.

*“You are going to get people who say, oh that is too far, or oh I can’t go up there.”*

(Practice 5, practice nurse)

*“We’ve noticed that ...recently with the recession and people’s job situation ... they’re ...fearful of taking time out.”*

(Practice 4, practice nurse b)

In addition, HCPs (n=5) reported procedural limitations with access to DESMOND, for example the referral process and the wait to get seen.

*“I think the system right from the beginning, right the way through till the end is not really a failsafe method for picking up somebody who is initially somewhat ambivalent”*

(Practice 1, GP)

## *2.b Appropriateness of the programme for certain patient sub-groups*

HCPs (n=10) suggested DESMOND was not attractive for the elderly or people with young children as children were not welcome to attend group sessions.

*"I think the older people tend not to [go]... I wonder if that's partly because as an older person... they lose some ability to be in groups ... and... people with ...small children."*

(Practice 12, practice nurse)

Patient level complexity is another factor the HCPs identified as contributing to poor uptake. This complexity includes, factors such as mental health issues and cultural factors such as being non-English speaking *"the ones who most need to go, guess what, are the ones that don't go"* (Practice 14, practice nurse). Some of the participants (n=5) concluded from this that often those in most need of additional input were not accessing that support:

*"Access is, I think, appalling! ...if I took a list of all our poorly controlled diabetics ...English would be their second language, so that's the ...big issue."*

(Practice 2, practice nurse)

A number of participants (n=4) commented that the content was not targeting those who have high levels of health literacy and others stating it was too high for those with low literacy levels.

*"...a lot of them are very intellectual and very health literate, and they may find ...the level isn't pitched quite right"*

(Practice 11, practice nurse)

*"...some of them haven't gone because... they can't read or write... people are ...frightened."*

(Practice 13, practice nurse)

## *2.b Course communication*

For participants from the majority of GP practices (n=14) communicating information about DESMOND was seen as problematic and it was difficult to persuade some people.

*"I had someone this morning, who just said "don't even think about it I am not going to sit with a load of fatties and be told I can't have sugar in my tea"."*

(Practice 14, practice nurse)

### 3. Suggestions for improvement

HCPs suggestions for improvement could be summarised within 2 main sub-themes, those addressing how to improve attendance at DESMOND/DSME and those aimed at improving it's content for those who do attend.

#### 3.a Improving attendance

Almost all of the HCPs (n=17) interviewed thought making DESMOND more local to people with diabetes, ideally within their own GP practice, might improve attendance. One of the respondents describes the reasons for this:

*"Our surgery is ...underneath a high rise block of flats, which is where all the patients live... we work in a deprived area,... a lot of these people are African and Asian... they're just out of their comfort zone, if they're not [in a place they know]."*

(Practice 10, practice nurse)

Incentivising participation (n=3) was suggested as something which may work, *"they could get free membership of a gym"* (Practice 6, practice nurse). Plus, offering DESMOND at times when working people could attend was considered to be important and which was not available in all the boroughs (n=2), *"if it was on Saturday they might go"* (Practice 6, practice nurse).

Improved marketing of DESMOND was also a suggestion (n=5). Such as changing the name to avoid confusion, *"I'm not gonna say 'to DESMOND' because it just doesn't mean anything"* (Practice 6, practice nurse). And also, advertising more widely. DESMOND is normally advertised within the GP surgeries on posters. However, it is not advertised through the media. Improved promotional material could be given to people to help them make a decision to attend, and to advertise DESMOND at a wider range of locations. One suggestion was to advertise where people with diabetes went for their eye screening:

*"If the information about it also were at the DECS [Diabetes Eye & Complications Service]... and those people are saying "well your eyes are alright at the moment but, have you done the DESMOND? ...We really don't want these eyes getting any worse..."*

(Practice 4, practice nurse b)

Finally, it was suggested to change the method of referral to increase DESMOND attendance, giving people slots they could book and a wider choice of locations where they could attend.

### *3.b Programme content*

It was suggested that in order to increase DESMOND uptake, it may be beneficial to optimise the content and delivery of the programme by making it more individually targeted, thereby overcoming current barriers such as low levels of health literacy (n=4). One HCP specified that different versions of DSME were required.

*“I firmly believe that one size doesn’t fit all”*

(Practice 11, practice nurse)

And another suggested that people who had attended DESMOND and successfully made changes could join a DESMOND group to explain how they did it.

*“I think utilising other people’s experiences ...I did do it this way and actually I felt better.”*

(Practice 12, practice nurse)

Including a DESMOND follow-up to review action-plans created during the programme (n=2) or other activities (n=2), “a cooking demonstration” (Practice 5, practice nurse) were suggested to help people improve their self-management.

*“If you find out what their KPIs [key performance indicators] are, if practices are incentivised to refer and the service has got KPIs on how many courses they deliver and follow them up”*

(Practice 11, practice nurse)

HCPs also suggested involving other groups in delivery (n=2), for example, church groups and, “have a DESMOND alongside Weight Watchers” (Practice 12, practice nurse).

One of the respondents felt that support, not necessarily as part of DESMOND, should be available for people to address psychological issues that contribute to the development of T2DM.

*“I think we could try and have a psychological support for people and maybe self-esteem classes to make people feel better, not to say that it’s okay to be, you know, have a body mass index of forty-six and be a Type 2 diabetic but actually why are you like that and that something is not being dealt with. “*

(Practice 12, practice nurse)

## Discussion

The aim of this study was to determine primary care HCPs views of DSME, specifically DESMOND, for people with newly diagnosed T2DM. Almost all HCPs identified benefits of the DESMOND programme, such as the group mode of delivery enabling people with diabetes to learn from one another and all participants had some knowledge of DESMOND. One of the most common factors limiting uptake of DESMOND identified was the problem of access for particular groups, people with literacy problems, the elderly, and those of working age or with young children. The latter is highly relevant for the local community considering a roughly 10 year earlier onset in people of black African or afro-Caribbean ethnicity [20]. And hard-to-reach groups, such as people with mental health problems or learning difficulties and non-English speakers, are still reliant on primary care HCPs for DSME despite being in greatest need of specialist care as all are at risk of poor health outcomes [21-23]. In one of the boroughs there is now group Portuguese DSME on offer but this still means that people who live in other boroughs or understand other languages do not have access to DSME even though there are programmes available in south Asian languages. Whilst there is a DESMOND programme being developed for people with learning disabilities, this was not currently available. Related to this is the capacity of DESMOND to meet the needs of people with varying levels of health literacy which was a frequent concern for HCPs who felt that people would disengage. In Germany cognitive testing has been used to determine IQ level so that people can be offered either standard DSME or one tailored to a lower IQ focusing on practical aspects of diabetes self-management [24]. Therefore designing different courses for different groups of people could be the way forward [25].

There was variation in terms of HCPs level of knowledge of DESMOND. Having a clear idea of the programme is required to 'sell' it to patients something that has been identified on numerous occasions by people with diabetes as reasons they declined to attend [12, 25]. However, even when most HCPs do have that knowledge as in the current study one HCP identified it was difficult to 'sell' the programme to someone who anticipated that they would be admonished for their current dietary behaviour. Therefore, HCPs may need support to overcome communication 'roadblocks' from patients who are ambivalent. People with diabetes may be unaware of the actual content of DESMOND and this was evident from a study in Northern Ireland which demonstrated that some people with diabetes do not attend because they think self-managing diabetes is about eating healthy food and exercising more, when actually their overall knowledge of diabetes is poor [25] and left unaddressed may adversely affect their future self-management efforts.

HCPs identified factors that might improve the uptake of DESMOND as well as suggestions for improving its content. Marketing DESMOND more widely was suggested to inform more people with diabetes about it, this would also help normalise the portrayal of T2DM in the media and address common misconceptions that invite stigma [26], which subsequently can prevent people accessing DSME [12]. Introducing a follow-up was considered helpful so that DESMOND attendees could work on action plans set during the course which are not currently reviewed. And one HCP suggested more psychological support and whilst the current DESMOND programme does discuss depression and uses motivational strategies it is not designed to address emotional issues that may have contributed to the onset of diabetes and are likely to affect ongoing optimal diabetes self-management [27]. Tackling this within the context of DSME may be problematic as there would be training implications for DESMOND educators and there are questions to address in terms of what psychological therapy would work best for whom [28, 29].

The strengths of this study are that a large pilot interview was conducted ahead of the majority of the interviews to determine which HCPs were involved in referring people to the DESMOND course. Whilst most of the data relates to DESMOND, it may also be relevant for other DSME programmes [30]. It included HCPs based in GP practices across a large multi-ethnic area of south London. Limitations of the research included that a different topic guide was used for individual and group interviews to reduce time burden on the groups. Second, apart from the initial pilot interview where a number of GPs were interviewed subsequent interviews involved practice nurses only although were representative of the wider HCP workforce who inform and refer people with newly diagnosed T2DM to DSME [8]. This was for two main reasons, first that practice nurses were conducting the majority of diabetes clinics and secondly where there was a dedicated GP for diabetes within the practice it became more difficult to schedule a convenient time. Therefore future studies may want to purposively recruit GPs to determine whether they hold different views to the ones reported here.

Primary care HCPs value DESMOND as it provides people with T2DM evidence-based information in sufficient depth to assist them to self-manage their diabetes and saves consultation time in primary care diabetes clinics. However, HCPs may need more training in terms of how to 'sell' DSME to people with diabetes which may also improve uptake. Future research may want to focus on how these conversations are conducted and how they may be improved upon. HCPs are concerned that even if most people who can do attend group DSME there are many people who are not eligible to attend and there the onus is on primary care HCPs to provide information when specialist services are likely to be the most appropriate. How and whether a group-format DSME is appropriate for these groups needs to be determined. HCPs were able to generate some novel ideas that may improve uptake of DSME that may also work nationally and internationally.

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## Box 1. The DESMOND Programme

**DESMOND** is a group structured education programme that meets the UK's Department of Health's quality criteria for education programmes. It has a strong person-centred philosophy. It uses adult learning theories to empower and actively involve participants in their own learning to enable them to apply the knowledge and problem-solving skills learnt to their own individual context. It involves 6 hours of group sessions delivered by two trained educators (usually a nurse and a dietician) to a maximum of 10 people with type 2 diabetes. It follows a structured curriculum including: thoughts and feelings of the participants regarding diabetes; what diabetes is and what happens to the body; risks and complications of diabetes; monitoring and medication for diabetes; food choices; physical activity and its benefits; planning for the future including behaviour change to optimise self-management; and how diabetes may affect mood.

Table 1. General Practice characteristics (N=15)

	Borough	Practice size	nurses	GPs	Other staff
Practice 1	1	8,848	1	4	3
Practice 2	1	7,161	1	0	0
Practice 3	1	3,831	1	0	0
Practice 4	1	13,058	3	0	0
Practice 5	2	7,231	1	0	0
Practice 6	2	4,385	1	0	0
Practice 7	2	7,607	1	0	0
Practice 8	2	19,497	2	0	0
Practice 9	2	14,685	2	0	0
Practice 10	3	23,135	1	0	0
Practice 11	3	7,268	1	0	0
Practice 12	3	3,999	1	0	0
Practice 13	3	5,619	1	0	0
Practice 14	3	6,452	1	0	0
Practice 15	3	11,083	2	0	0

\*borough 1: White ethnicity=54%; Black=31%; S. Asian/other=15%

\*\*borough 2: White ethnicity=56%; Black=30%; S. Asian/other=14%

\*\*\*borough 3: White ethnicity=54%; Black=27%; S. Asian/other=19%

According to Census 2011

Table 2. Participant characteristics (n=22)

	<b>HCPs (n=22)</b>
Mean age, years (SD)	52.1 (7.8)
Female, n (%)	21 (89)
Nurses/GPs	21/1
Ethnicity, n (%)	
• White	19 (86)
• Black	2 (9)
• South Asian/other	1 (5)

## Appendix 1 –Interview topic guide

### **Topic guide – Interviews with health professionals to determine their views on structured education for people with type 2 diabetes**

Introduce purpose of the study; confidentiality; timing

#### **1. Knowledge and experience of the Diabetes Education for Ongoing and Newly Diagnosed (DESMOND) programme**

- Do they refer/lead/commission DESMOND?
- What is their understanding of what the course involves its main features?
- What do they think the benefits of the course are?
- Do they think DESMOND improves outcomes for people living with diabetes?
- What do they think the limitations of the course are?
- How can health professionals be better informed re: content/purpose of DESMOND?

#### **2. Awareness of low attendance rates for the DESMOND programme**

- What do they think are the main reasons for low attendance?
- Do they think low attendance is a problem, if no why?
- What can be done to improve attendance rates?

#### **3. DESMOND referrals**

- How is the DESMOND referral made in their area?
  - Who informs patients?
  - What information given? If them, do they tell patients what it covers, who delivers it, who else can go?
  - How can the referral process be improved?
  - Do you require any specific training to be better able to promote referral/attendance?
  - Any other views on referral?

- Do they think the method of referral affects attendance rates?
- Are there other organisational factors affecting attendance?
- Have any changes been made in light of referral becoming a QOF target?

#### **4. Recommendations for future patients who are newly diagnosed**

- What in their view is the ideal support/treatment for someone at diagnosis?
- What is good about the support and treatment their patients received/what could be improved on?
- How should education and support be best delivered, by whom?
- What are the current gaps in provision and support to help people with diabetes self-manage their condition?
- What other sources of information do you guide your diabetes patients to?
- Do they have any personal recommendations to help others?

#### **5. Summary**

- Was there anything I left out?
- Anything else you would like to tell me?

**Focus group alternative interview:**

**6. What do you think of the Diabetes Education for Ongoing and Newly Diagnosed (DESMOND) programme**

- Can you give some positive aspects of the course, 3 things?
- What are the negative aspects of the course, 3 things?
- Does DESMOND improve outcomes for people with diabetes?
- If some people do not respond to the question, ask them if they are familiar with it

**7. Attendance is low for the DESMOND programme**

- Can you give some potential explanations for this, 3 things?
- What could improve attendance, 3 things?

**8. DESMOND referrals**

- How is the DESMOND referral made in their area?
- What is good about referral process?
- What could be improved?
- Have any changes been made in light of referral becoming a QOF target?
- Could referral process affect attendance?

**9. What else is needed**

- How can education and support for people with diabetes be best delivered, by whom?
- What are the current gaps in provision and support to help people with diabetes self-manage their condition?

**10. Summary**

- Was there anything I left out?
- Anything else you would like to tell me?